Amendments to the Claims:

1. (withdrawn) A semi-insulating zinc-oxide (ZnO) single crystal.

2. (withdrawn) The crystal of claim 1 wherein the resistivity of the crystal is in a range from 1.5x103 to 109 ohm-centimeter (Ω-cm).

3. (withdrawn) The crystal of claim 1 wherein the resistivity of the crystal is sufficient to achieve electrical isolation of a device to be formed thereon.

4. (withdrawn) The crystal of claim 1 wherein the crystal is produced from a melt.

5. (withdrawn) The crystal in claim 1 wherein the crystal is a substrate that is grown as a bulk single crystal, cut, and processed to a specified thickness.

6. (withdrawn) The crystal in claim 1 wherein the crystal contains a dopant that increases the resistivity of the crystal relative to intrinsic ZnO.

7. (withdrawn) The crystal of claim 6 wherein the dopant is added to the ZnO single crystal in an atomic concentration ranging from 1×10^{15} atoms per cubic centimeter (atoms/cc) to 5×10^{21} atoms/cc.

8. (withdrawn) The crystal of claim 6 wherein the dopant comprises lithium (Li).

9. (withdrawn) The crystal of claim 6 wherein the dopant comprises sodium (Na).

10. (withdrawn) The crystal of claim 6 wherein the dopant comprises copper (Cu).

11. (withdrawn) The crystal of claim 6 wherein the dopant comprises nitrogen (N).

12. (withdrawn) The crystal of claim 6 wherein the dopant comprises phosphorus (P).

13. (withdrawn) The crystal of claim 6 wherein the dopant comprises manganese (Mn).

Claim 14 (currently amended) A method comprising the step of:

forming a semi-insulating zinc-oxide (ZnO) single crystal using a modified Bridgeman growth technique in which the ZnO single crystal is formed from a ZnO melt contained within solid-phase ZnO.

Claim 15 (original) The method of claim 14 wherein the crystal is formed with a resistivity in a range from $1.5x10^3$ to 10^9 ohm-centimeter (Ω-cm).

Claim 16 (original) The method of claim 14 wherein the crystal is formed with a resistivity sufficient to achieve electrical isolation of a device to be formed thereon.

Claim 17 (original) The method of claim 14 wherein the crystal is formed from a melt.

Claim 18 (original) The method in claim 14 wherein the crystal is formed as a substrate that is grown as a bulk single crystal, cut, and processed to a specified thickness.

Claim 19 (original) The method in claim 14 wherein the crystal is formed with a dopant that increases the resistivity of the crystal relative to intrinsic ZnO.

Claim 20 (original) The method of claim 19 wherein the dopant is added to the ZnO single crystal in an atomic concentration ranging from 1×10^{15} atoms per cubic centimeter (atoms/cc) to 5×10^{21} atoms/cc.

Claim 21 (original) The method of claim 19 wherein the dopant comprises lithium (Li).

Claim 22 (original) The method of claim 19 wherein the dopant comprises sodium (Na).

Claim 23 (original) The method of claim 19 wherein the dopant comprises copper (Cu).

Claim 24 (original) The method of claim 19 wherein the dopant comprises nitrogen (N).

Claim 25 (original) The method of claim 19 wherein the dopant comprises phosphorus (P).

Claim 26 (original) The method in claim 19 wherein the dopant comprises manganese (Mn).

Claim 27 (new) A method comprising the step of:

forming a semi-insulating zinc-oxide (ZnO) single crystal using a modified Bridgeman growth technique in which a melt of ZnO is formed with a heating element and is contained within a solid phase portion of ZnO cooled by a cooling unit and in which the ZnO is pressurized with oxygen (O) from a source, to form the ZnO single crystal.